

# EXHIBIT Y

**EXHIBIT 1**  
**UNREDACTED VERSION OF**  
**DOCUMENT SOUGHT TO BE**  
**SEALED**

HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY – SOURCE CODE

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION**

CISCO SYSTEMS, INC.,

Plaintiff,

v.

ARISTA NETWORKS, INC.,

Defendant.

Case No. 5:14-cv-05344-BLF (PSG)

**OPENING EXPERT REPORT OF KEVIN ALMEROTH  
REGARDING COPYING**

**SUBMITTED ON BEHALF OF CISCO SYSTEMS, INC.**

**CONTAINS HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY INFORMATION  
AND SOURCE CODE**

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and used throughout the Internet. Topics include a wide variety of standardized Internet protocols at the Network Layer (Layer 3), Transport Layer (Layer 4), and above.

27. In addition to having co-founded a technology company myself, I have worked for, consulted with, and collaborated with various technology companies.

28. I am a Member of the Association of Computing Machinery (ACM) and a Fellow of the Institute of Electrical and Electronics Engineers (IEEE).

29. In my 35 years of experience with computer software, I have reviewed innumerable lines of source code written by many different programmers. And as mentioned above, I also teach the configuration and operation of various network devices (switches, routers, gateways), which includes topics related to command line interface computer programs and the technology upon which such programs are based. I also teach network programming classes and assign programming projects that I personally review and grade.

30. As a result of my teaching, I am familiar with variations of command and program expression that arise when a set of engineers and/or programmers are asked to solve a problem. What I have found in my decades of experience is that engineers and programmers find many ways to write commands and programs to express solutions to the same problem.

31. I also am familiar with tools used to assist in the detection of plagiarism or source code copying in a university setting. I have worked with UCSB to develop software tools for detecting plagiarism. For example, I was involved in developed the PAIRwise Plagiarism Detection Systems (“PAIRwise”). PAIRwise is a service that I helped invent that provides a variety of functions including comparing assignments against other assignments in a class and comparing assignments against the vast amount of data available on the Internet. The goal is to help professors detect plagiarism in their students’ work.

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47. I have personally inspected portions of the IOS source code in support of preparing this report.

**B. The IOS CLI Computer Program**

48. In networking systems before IOS, complete configuration files were loaded on network devices using remote servers. In these older system, errors in the configuration files often would not be noticed until the router was activated. What this meant was that a new configuration file was needed to correct any error that may have been included in an initial configuration file. This process was a slow and inefficient way of configuring network devices.

49. In the mid-1980s, Cisco endeavored to solve this problem.<sup>5</sup> Cisco’s engineering team—lead by Kirk Lougheed—came up with the idea to create a unique CLI computer program.<sup>6</sup> This decision was an important one. As is the case with personal computers and workstations, the user interface computer program for a network device is a critical component of the system—it is the portal by which the user interacts with the device. It gives the operating system its distinct character, and distinguishes it from other operating systems.

50. The computer program that Mr. Lougheed and his fellow Cisco engineers chose to build was one that would enable configuration changes directly on a Cisco router.<sup>7</sup> A CLI computer program allows a user to enter a “command” into a text-based input system in order to provide information (*e.g.*, a status request or a configuration command) to, and receive

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<sup>5</sup> See generally Deposition transcripts of Kirk Lougheed; Conversation with Kirk Lougheed (June 3, 2016).

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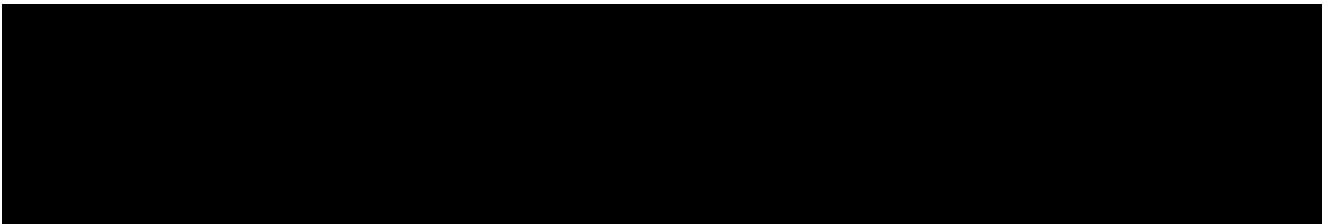
<sup>7</sup> Conversation with Kirk Lougheed (June 3, 2016); see generally Deposition Testimony of Kirk Lougheed; Abhay Roy; Adam Sweeney; Anthony Li; Devadas Patil; Greg Satz; Hugh Holbrook; Phillip Remaker; Ramanathan Kavasseri; and Tong Liu; see also *infra* Section V(C) (discussing creativity and originality).

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(testing an Arista DCS-7554 running EOS)

**B. EOS CLI**



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[REDACTED]

[REDACTED]

[REDACTED]

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